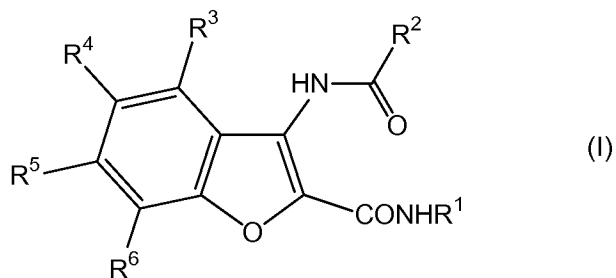


CLAIMS

1. A compound represented by general formula (I):



aprodrug thereof, or a pharmaceutically acceptable salt thereof,

5 wherein

R^1 is a hydrogen atom or a lower alkyl group;

R^2 is:

- a) a lower alkyl group,
- b) a halo-lower alkyl group,
- 10 c) a hydroxy-lower alkyl group,
- d) a cycloalkyl group,
- e) an aryl-cycloalkyl group,
- f) a heterocycloalkyl group,
- g) an aryl group, unsubstituted or substituted with 1 to 5
- 15 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,
- h) an aralkyl group, wherein the ring of the aralkyl group is unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,
- 20 i) an aryl-alkenyl group, wherein the ring of the aryl-alkenyl group is unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,

j) a lower alkyl group substituted with a group selected from a lower alkoxy group or a lower acyloxy group,

k) an aryloxy-lower alkyl group, wherein the ring of the aryloxy-lower alkyl group is unsubstituted or substituted with
5 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,

l) an aralkyloxy-lower alkyl group, wherein the ring of the aralkyloxy-lower alkyl group is unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of
10 X^1 , X^2 , X^3 , X^4 and X^5 ,

m) an arylsulfanyl-lower alkyl group, wherein the ring of the arylsulfanyl-lower alkyl group is unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,

15 n) a heteroaryl group, unsubstituted or substituted with 1 to 3 substituents selected from the group consisting of X^6 , X^7 and X^8 , or

o) a heteroaryl-lower alkyl group, wherein the ring of the heteroaryl-lower alkyl group is unsubstituted or substituted
20 with 1 to 3 substituents selected from the group consisting of X^6 , X^7 and X^8 ;

X^1 , X^2 , X^3 , X^4 and X^5 are each independently:

- a) a halogen atom,
- b) a lower alkyl group,
- 25 c) a halo-lower alkyl group,
- d) a cycloalkyl group,
- e) a lower alkoxy group,

- f) a halo-lower alkoxy group,
- g) a cycloalkyloxy group,
- h) a heterocycloalkyloxy group,
- i) a lower alkoxy-lower alkoxy group,
- 5 j) a hydroxy-lower alkyl group,
- k) a hydroxyl group,
- l) a carboxy group,
- m) a lower alkoxycarbonyl group,
- n) an aralkyloxycarbonyl group,
- 10 o) a lower acyl group,
- p) a cyano group,
- q) $-A^1-NR^{20}R^{21}$,
- r) $-A^2-SR^{22}$,
- s) $-SO_2NR^{23}R^{24}$,
- 15 t) a phenyl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group,
- 20 u) a phenoxy group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group,
- 25 v) a heteroaryl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower

alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group,

w) a heteroaryloxy group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group
 5 consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group, or

x) a lower alkoxy group substituted with a group selected from an aryl group or a heteroaryl group, or

10 when two of X^1 , X^2 , X^3 , X^4 and X^5 are adjacent each other, they are bonded together to form a group represented by $-O-(CH_2)_m-O-$, $-O-(CH_2)_n-$ or $-(CH_2)_p-$;

R^{20} and R^{21} are each independently a hydrogen atom, a lower alkyl group, a cycloalkyl group, a heterocycloalkyl group, a
 15 bridged cyclichydrocarbon group, a heteroaryl-lower alkyl group, a hydroxy-lower alkyl group, a lower alkoxy-lower alkyl group, a lower acyl group, a lower alkoxy-carbonyl group, an aralkyloxycarbonyl group or a di(lower alkyl)amino-lower alkyl group, or

20 R^{20} and R^{21} , taken together with the nitrogen atom to which they are bonded, form a cyclic amino group, wherein the cyclic amino group is unsubstituted or substituted with one or two substituents selected independently from the group consisting of:

- 25
- a) a lower alkyl group,
 - b) a cycloalkyl group,
 - c) a phenyl group, unsubstituted or substituted with 1 to 3

substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group and a halo-lower alkoxy group,

- d) an aralkyl group, wherein the ring of the aralkyl group
 5 is unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group and a halo-lower alkoxy group, or adjacent ring-carbon atoms of the aralkyl group are substituted with $-O-(CH_2)_m-O-$,
- 10 e) a heteroaryl group,
 f) a heteroaryl-lower alkyl group,
 g) a lower alkyl group substituted with a group selected from a hydroxyl group, a lower alkoxy group, a carboxy group, an aralkyloxycarbonyl group, a cyclic aminocarbonyl group or a
 15 di(lower alkyl)amino group,
 h) a hydroxyl group,
 i) an oxo group,
 j) a lower alkoxycarbonyl group,
 k) an aralkyloxycarbonyl group,
 20 l) a carbamoyl group,
 m) a lower acyl group,
 n) a benzoyl group,
 o) a di(lower alkyl)amino group, and
 p) a diphenylmethylene group;
- 25 A^1 is a bond, a C_{1-3} -alkylene group or a carbonyl group;
 A^2 is a bond or a C_{1-3} -alkylene group;
 R^{22} is:

a) a lower alkyl group,

b) a phenyl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group,

5 a lower alkoxy group and a halo-lower alkoxy group,

c) a heteroaryl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group and a halo-lower alkoxy group,

10 or

d) a di(lower alkyl)amino-lower alkyl group;

R^{23} and R^{24} are each independently a hydrogen atom or a lower alkyl group, or

R^{23} and R^{24} , taken together with the nitrogen atom to which
15 they are bonded, form a cyclic amino group, wherein the cyclic amino group is unsubstituted or substituted with a group selected from a lower alkyl group or an aralkyl group;

m is 1 or 2;

n is 2 or 3;

20 p is 3 or 4;

X^6 , X^7 and X^8 are each independently:

a) a halogen atom,

b) a lower alkyl group,

c) a halo-lower alkyl group,

25 d) a hydroxy-lower alkyl group,

e) a cycloalkyl group,

f) a heterocycloalkyl-lower alkyl group,

- g) a lower alkoxy group,
- h) a halo-lower alkoxy group,
- i) a lower acyl group,
- j) a carboxy group,
- 5 k) $-A^1-NR^{20}R^{21}$,
- l) $-A^2-SR^{22}$,
- m) $-SO_2NR^{23}R^{24}$,
- n) a phenyl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting
- 10 of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group,
- o) a phenoxy group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting
- 15 of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group,
- p) an aralkyl group, wherein the ring of the aralkyl group is unsubstituted or substituted with 1 to 3 substituents selected
- 20 independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group,
- q) a heteroaryl group, unsubstituted or substituted with 1
- 25 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group

and a di(lower alkyl)amino-lower alkyl group,

r) a heteroaryloxy group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group, or

s) an aralkyloxy group;

R^3 , R^4 , R^5 and R^6 are each independently:

a) a hydrogen atom,

10 b) a halogen atom,

c) a lower alkyl group,

d) a halo-lower alkyl group,

e) a lower alkoxy group,

f) a halo-lower alkoxy group,

15 g) a hydroxyl group,

h) a cyano group,

i) an aryl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group and a halo-lower alkoxy group,

20 a lower alkoxy group and a halo-lower alkoxy group,

j) an aralkyloxy group, wherein the ring of the aralkyloxy group is unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group and a halo-lower alkoxy group,

25 a lower alkoxy group and a halo-lower alkoxy group,

k) a di(lower alkyl)amino group,

l) a lower alkylsulfanyl group, or

m) a nitro group, or

when two of R^3 , R^4 , R^5 and R^6 are adjacent each other, they are bonded together to form a group represented by $-\text{CH}=\text{CH}-\text{CH}=\text{CH}-$, provided that at least one of R^3 , R^4 , R^5 and R^6 is other than
 5 a hydrogen atom;

with the proviso that the following compounds are excluded:

- (1) 1-acetylamino-naphtho[2,1-b]furan-2-carboxamide,
- (2) 1-benzoylamino-naphtho[2,1-b]furan-2-carboxamide,
- (3) 3-benzoylamino-5-chlorobenzofuran-2-carboxamide,
- 10 (4) 5-chloro-3-[2-(3,4-diethoxyphenyl)acetylamino]-
benzofuran-2-carboxamide,
- (5) 5-bromo-3-[2-(3,4-diethoxyphenyl)acetylamino]-
benzofuran-2-carboxamide,
- (6) 5-chloro-3-(2-chloroacetylamino)benzofuran-2-
 15 carboxamide, and
- (7) 3-acetylamino-5-chlorobenzofuran-2-carboxamide.

2. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R^1 is a hydrogen atom.

20

3. The compound according to claim 2, or a pharmaceutically acceptable salt thereof, wherein R^3 is a hydrogen atom.

4. The compound according to claim 3, or a pharmaceutically
 25 acceptable salt thereof, wherein

R^2 is:

a) a lower alkyl group,

- b) a cycloalkyl group,
- c) an aryl group, unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,
- 5 d) an aralkyl group, wherein the ring of the aralkyl group is unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,
- e) a lower alkoxy-lower alkyl group,
- f) an aryloxy-lower alkyl group, wherein the ring of the
- 10 aryloxy-lower alkyl group is unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 ,
- g) an aralkyloxy-lower alkyl group, wherein the ring of the aralkyloxy-lower alkyl group is unsubstituted or substituted
- 15 with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 , or
- h) a heteroaryl group, unsubstituted or substituted with 1 to 3 substituents selected from the group consisting of X^6 , X^7 and X^8 ; and
- 20 X^1 , X^2 , X^3 , X^4 , X^5 , X^6 , X^7 and X^8 are as defined in claim 1.

5. The compound according to claim 4, or a pharmaceutically acceptable salt thereof, wherein R^4 , R^5 and R^6 are each

25 independently a hydrogen atom, a halogen atom, a lower alkyl group, a halo-lower alkyl group or a lower alkoxy group, provided that at least one of R^4 , R^5 and R^6 is other than a hydrogen atom.

6. The compound according to claim 5, or a pharmaceutically acceptable salt thereof, wherein

R^2 is:

- 5 a) a cycloalkyl group,
- b) an aryl group, unsubstituted or substituted with 1 to 5 substituents selected from the group consisting of X^1 , X^2 , X^3 , X^4 and X^5 , or
- c) a heteroaryl group, unsubstituted or substituted with 1
10 to 3 substituents selected from the group consisting of X^6 , X^7 and X^8 .

7. The compound according to claim 6, or a pharmaceutically acceptable salt thereof, wherein

15 X^1 , X^2 , X^3 , X^4 and X^5 are each independently:

- a) a halogen atom,
- b) a lower alkyl group,
- c) a lower alkoxy group,
- d) a halo-lower alkoxy group,
- 20 e) a heterocycloalkyloxy group,
- f) a hydroxyl group,
- g) $-A^1-NR^{20}R^{21}$,
- h) $-A^2-SR^{22}$,
- i) $-SO_2NR^{23}R^{24}$,
- 25 j) a heteroaryl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting of a halogen atom, a lower alkyl group, a halo-lower

alkyl group, a lower alkoxy group, a halo-lower alkoxy group and di(lower alkyl)amino-lower alkyl group, or

when two of X^1 , X^2 , X^3 , X^4 and X^5 are adjacent each other, they are bonded together to form $-OCH_2O-$; and

5 X^6 , X^7 and X^8 are each independently:

- a) a halogen atom,
- b) a lower alkyl group,
- c) a hydroxy-lower alkyl group,
- d) a cycloalkyl group,

10 e) a heterocycloalkyl-lower alkyl group,

f) $-A^1-NR^{20}R^{21}$,

g) $-SO_2NR^{23}R^{24}$,

h) a phenyl group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting

15 of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group, or

i) a phenoxy group, unsubstituted or substituted with 1 to 3 substituents selected independently from the group consisting

20 of a halogen atom, a lower alkyl group, a halo-lower alkyl group, a lower alkoxy group, a halo-lower alkoxy group and a di(lower alkyl)amino-lower alkyl group; and

A^1 , A^2 , R^{20} , R^{21} , R^{22} , R^{23} and R^{24} are as defined in claim

1.

25

8. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, selected from the group consisting of:

- (1) 3-cyclopropanecarbonylamino-5-fluorobenzofuran-2-carboxamide;
- (2) 5-chloro-3-cyclopropanecarbonylaminobenzofuran-2-carboxamide;
- 5 (3) 3-(3-fluorobenzoylamino)-6-methoxybenzofuran-2-carboxamide;
- (4) 3-(4-fluorobenzoylamino)-6-methoxybenzofuran-2-carboxamide;
- (5) 5-fluoro-3-(3-methylbenzoylamino)benzofuran-2-
- 10 carboxamide;
- (6) 3-(benzo[1,3]dioxole-5-carbonyl)amino-6-fluorobenzofuran-2-carboxamide;
- (7) 5-chloro-3-(furan-2-carbonyl)aminobenzofuran-2-carboxamide;
- 15 (8) 5,7-difluoro-3-(furan-2-carbonyl)aminobenzofuran-2-carboxamide;
- (9) 5,7-difluoro-3-(5-methylfuran-2-carbonyl)aminobenzofuran-2-carboxamide;
- (10) 3-(5-ethylfuran-2-carbonyl)amino-5-fluorobenzofuran-
- 20 2-carboxamide;
- (11) 3-(5-ethylfuran-2-carbonyl)amino-5,7-difluorobenzofuran-2-carboxamide;
- (12) 6-methoxy-3-(5-phenylfuran-2-carbonyl)aminobenzofuran-2-carboxamide;
- 25 (13) 6-fluoro-3-(6-phenoxy pyridine-3-carbonyl)aminobenzofuran-2-carboxamide;
- (14) 6-methoxy-3-(2-methoxyacetyl amino)benzofuran-2-

- carboxamide;
- (15) 3-[2-(4-chlorophenoxy)acetylamino]-5-fluorobenzofuran-2-carboxamide;
- (16) 3-(2-benzyloxyacetylamino)-5-fluorobenzofuran-2-
- 5 carboxamide;
- (17) 6-chloro-3-cyclopropanecarbonylamino benzofuran-2-carboxamide;
- (18) 3-cyclopropanecarbonylamino-5,7-difluorobenzofuran-2-carboxamide;
- 10 (19) 7-chloro-3-cyclopropanecarbonylamino-5-fluorobenzofuran-2-carboxamide;
- (20) 3-cyclopropanecarbonylamino-5-fluoro-7-methoxybenzofuran-2-carboxamide;
- (21) 3-cyclobutanecarbonylamino-5,7-difluorobenzofuran-2-
- 15 carboxamide;
- (22) 5-fluoro-7-methoxy-3-(4-methoxybenzoylamino)benzofuran-2-carboxamide;
- (23) 5,7-difluoro-3-phenylacetylamino benzofuran-2-carboxamide;
- 20 (24) 5,7-difluoro-3-[3-(4-methylpiperazine-1-carbonyl)benzoylamino]benzofuran-2-carboxamide;
- (25) 6-methoxy-3-[3-(4-phenylpiperazin-1-ylmethyl)benzoylamino]benzofuran-2-carboxamide;
- (26) 6-methoxy-3-[4-(1-methyl-1H-imidazol-2-ylsulfanylmethyl)benzoylamino]benzofuran-2-carboxamide;
- 25 (27) 3-[5-(4-benzylpiperazin-1-ylmethyl)furan-2-carbonylamino]-5,7-difluorobenzofuran-2-carboxamide;

(28) 3-[5-(4-benzo[1,3]dioxol-5-ylmethylpiperazin-1-ylmethyl)furan-2-carbonyl]amino-5,7-difluorobenzofuran-2-carboxamide;

(29) tert-butyl 4-[5-(2-carbamoyl-5,7-difluorobenzofuran-3-ylcarbamoyl)furan-2-ylmethyl]piperazine-1-carboxylate, and

(30) 5-fluoro-3-[5-(1-hydroxyethyl)furan-2-carbonyl]amino-benzofuran-2-carboxamide.

9. A pharmaceutical composition which comprises, as an active ingredient, a compound according to any one of claims 1 to 8 or a pharmaceutically acceptable salt thereof.

10. A therapeutic or prophylactic agent for a disease mediated by adenosine A_{2A} receptors, which comprises, as an active ingredient, a compound according to any one of claims 1 to 8 or a pharmaceutically acceptable salt thereof.

11. The therapeutic or prophylactic agent according to claim 10, wherein the disease mediated by adenosine A_{2A} receptors is a motor function disorder.

12. The therapeutic or prophylactic agent according to claim 11, wherein the motor function disorder is Parkinson's disease, Huntington's disease or Wilson's disease.

13. The therapeutic or prophylactic agent according to claim 10, wherein the disease mediated by adenosine A_{2A} receptors is

depression or an anxiety disorder.

14. The therapeutic or prophylactic agent according to claim
10, wherein the disease mediated by adenosine A_{2A} receptors is
5 a cognitive function disorder.

15. The therapeutic or prophylactic agent according to claim
10, wherein the disease mediated by adenosine A_{2A} receptors is
a cerebral ischemia disorder.

10

16. The therapeutic or prophylactic agent according to claim
10, wherein the disease mediated by adenosine A_{2A} receptors is
restless legs syndrome.

15 17. A pharmaceutical combination comprising a compound
according to any one of claims 1 to 8 or a pharmaceutically
acceptable salt thereof and at least one selected from
anti-Parkinson drugs, antidepressants, drugs for cognitive
function disorders and drugs for cerebral ischemia disorders
20 other than adenosine A_{2A} receptor antagonists.

18. A use of a compound according to any one of claims 1 to
8 or a pharmaceutically acceptable salt thereof for the
manufacture of a medicament for treating or preventing a disease
25 mediated by adenosine A_{2A} receptors.

19. A method for treating or preventing a disease mediated

by adenosine A_{2A} receptors, which comprises administering an effective amount of a compound according to any one of claims 1 to 8 or a pharmaceutically acceptable salt thereof.